#### CONCURRENT MORNING SESSIONS - 8:30 - 10:00 am

- (WAM-F2) ALTERNATIVE METHODS OF MUNICIPAL SOLID WASTE DISPOSAL: A
  COMPARISON OF HEALTH RISKS IN MASSACHUSETTS
  A. Eschenroeder, S. Wolff, A. Taylor and D. Burmaster; Alanova,
  Inc.
- (WAM-F3) THE INGESTION OF CONTAMINATED FOODSTUFFS AS A MAJOR SOURCE OF RISK TO RESIDENTS NEAR A SUPERFUND SITE A. B. Chandler and R. C. Morgan; Environmental Science and Engineering, Inc.
- (WAM-F4) FAULTY APPROACHES TO MULTI-MEDIA RISK ASSESSMENT L. B. Gratt; SEACOR

#### CANCELLED

#### (WAM-G) GLOBAL CLIMATE ISSUES

Fulton Room

(WAM-H) SAFETY AT CHEMICAL PLANTS Chairs: Gary R. Verholek, Tenera

- (WAM-H1) APPLYING RISK ASSESSMENT METHODS IN DERIVING STANDARDS FOR TOXIC AIR POLLUTANTS

  C. E. Armstrong and G. R. Verholek; Vivarium Technologies, Inc. and Tenera
- (WAM-H2) USING HAZOP SOFTWARE TO EVALUATE CHEMICAL PLANT SAFETY G. M. Grews, J. E. Goss, P. E. McCluer and S. J. Wallace, JBF Associates, Inc.
- (WAM-H3) COHERENT HAZARD ASSESSMENT PROGRAM STRUCTURE
  R. W. Myers, A. S. McClyment and M. G. Verholek; Tenera
- (WAM-H4) RISK ASSESSMENTS AND EMERGENCY RESPONSE PLANNING M. G. Verholek and J. M. McKinney; Tenera

Acadian Room

## (WAM-I) INNOVATIVE METHODS IN TOXICOLOGY

Chair: Hugh L. Spitzer, American Petroleum Institute
(WAM-II) THE IMPACT OF MOLECULAR BIOLOGY ON RISK ASSESSMENT
R. W. Estabrook; University of Texas Southwestern Medical
Center and OXYgene/Dallas

(WAM-I2) IMPORTANCE OF HUMAN METABOLIC DATA IN DETERMINING THE RISK TO HUMANS EXPOSED TO ENVIRONMENTAL CHEMICALS
I. G. Sipes and B. J. Smith; University of Arizona

(WAM-I3) GENETIC RISK FACTORS IN HUMAN LUNG CARCINOGENESIS

A. Weston, H. Sugimura, S. Tamai, N. E. Caporaso, R. N. Hoover
and C. C. Harris; National Cancer Institute, National...
Institutes of Health

10:00 - 10:30 am COFFEE BREAK, Lobby

#### CONCURRENT MORNING SESSIONS - 10:30 am - Noon

La Salle Ballroom B (WAM-J) RISK COMMUNICATION

Chair: Branden B. Johnson, New Jersey Department of Environmental Protection

- (WAM-J1) ASSESSING GOVERNMENT NEEDS FOR RISK COMMUNICATION: A CASE STUDY IN NEW JERSEY
  - J. A. Shaw, B. B. Johnson and L. Korn; New Jersey Department of Environmental Protection
- (WAM-J2) THE KANAWHA VALLEY RISK COMMUNICATION PROJECT: THE RESULTS OF A PUBLIC OPINION SURVEY
  - J. M. Trauth and P. L. Hill; University of Pittsburgh and National Institute for Chemical Studies

2023293077

i i i i

## CONCURRENT MORNING SESSIONS - 10:30 am - Noon

(WAM-J3) USE OF COMMUNITY RIGHT TO KNOW DATA IN NEW JERSEY: A SURVEY OF ACTIONS AND PERCEPTIONS

B. B. Johnson; New Jersey Department of Environmental Protection

(WAM-J4) REACHING AN AUDIENCE: REVISING AND THE RISK COMMUNICATION PROCESS IN THE AIDS NATIONAL MAILING, 1988
M. H. Veeder; Indiana University Northwest

## La Salle Ballroom C (WAM-K) DOSE-RESPONSE RELATIONSHIPS

Chair: L. Anthony Cox, Jr., US West Advanced Technologies

(WAM-K1) BIOLOGICAL BASES OF LOW-DOSE NONLINEARITY FOR CHEMICAL CARCINOGENS

L. A. Cox, Jr.; US West Advanced Technologies

(WAM-K2) ANALYSIS OF HEALTH EFFECTS DOSE-RESPONSE CURVES FROM EXPOSURE TO IONIZING RADIATION USING MODELS FROM CHEMICAL CONTAMINATION EXPOSURE RISK ANALYSIS

C. R. Cothern; US Environmental Protection Agency

(WAM-K3) RELATIONSHIP BETWEEN THE SHAPE OF DOSE-RESPONSE CURVES AND BACKGROUND TUMOR RATES

D. W. Gaylor; National Center for Toxicological Research (WAM-K4) ADDITIVITY OF RISK AT LOW DOSE: THE EFFECT OF NORMAL VARIATION AND RANDOMNESS

J. A. Todhunter; SRS International

#### Pelican Room 1

(WAM—L) RISKS ASSOCIATED WITH FIELD APPLICATIONS OF GENETICALLY ENGINEERED MICROORGANISMS

Chair: Holly A. Hattemer-Frey, Oak Ridge National Laboratory

(WAM-L1) CANCELLED

(WAM-L2) RISK/BENEFIT FROM THE ENVIRONMENTAL RELEASE OF <u>PSEUDOMONAS</u> <u>SYRINGAE</u> (SNOMAX)

R. A. Goodnow; Genencor International

(WAM-L3) APPLICATION OF RISK ASSESSMENT METHODOLOGY TO GENETICALLY ENGINEERED FOOD PRODUCTS: A GENERIC APPROACH

L. Rudenko, J. Adgate, M. Aponte-Pons, T. Berner, V. Frankos,

R. Gregory, C. K. Lintner, N. Rachman, W. Sherman, R. Winters,

R. Wixtrom; ENVIRON Corporation

## Pelican Room 2

(WAM-M) MAJOR UNCERTAINTIES IN ENVIRONMENTAL EXPOSURE ASSESSMENT

Co-Chairs: Ross Macdonald and J. Lynch, Shell Oil Company and Exxon Chemical Company

(WAM-M1) INFORMATION-ANALYSIS-BASED EXPOSURE CHARACTERIZATION R. L. Sielken, Jr.; Bryan, Texas

(WAM-M2) ANALYSIS OF THE IMPACT OF EXPOSURE ASSUMPTIONS ON RISK ASSESSMENT AND RISK MANAGEMENT
G. K. Whitmyre, S. R. Baker, J. H. Driver, M. E. Ginevan and R. G. Tardiff; VERSAR, Inc.

(WAM-M3) UNCERTAINTY IN EXPOSURE ASSESSMENT

M. A. Callahan and W. P. Wood; US Environmental Protection
Agency

#### Poydras Room

(WAM-N) NON-CANCER HEALTH EFFECTS

Chair: Terrence K. Pierson, Research Triangle Institute

(WAM-N1) CANCELLED

(WAM-N2) QUANTIFICATION OF NON-CANCER HEALTH RISKS FROM EXPOSURE TO FACILITY AIR EMISSIONS OF ACETONE, FREON 113 AND METHYLENE CHLORIDE

M. J. Sullivan, J. T. Stanford and J. R. Hatherill; Envirologic Data, Inc.

#### CONCURRENT MORNING SESSIONS - 10:30 am - Noon

Institute

(WAM-N3) RISK CHARACTERIZATION OF NON-CANCER HEALTH EFFECTS FOR HEALTH BENEFITS ANALYSIS

(WAM-N4)

J. Mauskopf and R. Hetes; Research Triangle Institute
(WAM-N4) RISK CHARACTERIZATION FRAMEWORK FOR NON-CANCER HEALTH EFFECTS
FROM INDOOR AIR EXPOSURES TO COMPLEX MIXTURES
T. K. Pierson, R. G. Hetes and D. F. Naugle; Research Triangle

Fulton Room

#### (WAM-O) CONTAMINANTS IN MOTHER'S MILK

Chair: Rebecca D. Zale, ENSR Consulting and Engineering

(WAM-O1) A BODY BURDEN-BASED APPROACH TO ESTIMATING CANCER RISK FROM DIOXIN EXPOSURE VIA MOTHER'S MILK
R. D. Zale, P. D. Anderson, M. Schaefer and M. L. Bonfiglio; ENSR Consulting and Engineering

(WAM-02) ESTIMATE OF CANCER RISK FROM HALOGENATED PESTICIDES IN HUMAN BREAST MILK: ARKANSAS 1986 CD. R. Mattison; University of Pittsburgh

(WAM-03) EVIDENCE FOR PARTIAL MITIGATION OF EXPOSURE TO LIPOPHILIC XENOBIOTICS IN BREAST MILK DUE TO ELEVATED EXCRETION RATES IN INFANTS

J. C. Kissel; University of Washington

(WAM-04) PESTICIDES IN HUMAN BREAST MILK: POPULATION BASED ESTIMATES OF EXCESS LIFETIME CANCER RISK

D. R. Mattison; University of Pittsburgh

Orleans Room 1

(WAM-P) DEVELOPMENT OF METHODOLOGIES FOR EVALUATING RISK Chair: Jeffrey M. Paull, Maryland Department of the Environment

(WAM-P1) CANCELLED

(WAM-P2) A METHOD FOR SCREENING EXPOSURE PATHWAYS AT SITES CONTAMINATED WITH MULTIPLE CHEMICALS

M. J. Sullivan, P. A. McCaw and C. J. Miller; Envirologic Data,
Inc.

(WAM-P3) UPDATES IN US EPA RISK ASSESSMENT GUIDANCE T. L. Sorell; Wehran EnviroTech

(WAM-P4) A SURVEY AND ANALYSIS OF STATES' METHODOLOGIES FOR DERIVING DRINKING WATER GUIDELINES FOR CHEMICAL CONTAMINANTS

J. M. Paull, L. M. Joellenbeck, R. C. Cochran and K. S. Sidhu;

Maryland Department of the Environment and Michigan Department of Public Health

Acadian Room

## (WAM-Q) CANCER RISK ASSESSMENT MODELS

Chair: Richard Wilson, Harvard University

(WAM-Q1) COMPARISON OF THREE MODELS OF BENZENE PHARMACOKINETICS
T. J. Woodruff, F. Y. Bois, D. Auslander and R. C. Spear;
University of California, Berkeley

(WAM-Q2) APPLICATION OF A MODEL OF BENZENE PHARMACOKINETICS AND METABOLISM TO THE IDENTIFICATION OF EFFECTIVE CARCINOGENS F. Y. Bois, M. T. Smith and R. C. Spear; University of California, Berkeley

(WAM-Q3) MONTE CARLO SIMULATION OF ANIMAL BIOASSAYS

A. Shlyakhter, G. Goodman, and R. Wilson; Harvard University (WAM-Q4) POTENTIAL VALUE JUDGEMENT INFLUENCES AMONG SCIENTISTS ASKED TO EVALUATE THE HAZARDS OF DIOXIN, RADON AND ETS G. L. Carlo, N. L. Lee, S. D. Pettygrove and K. G. Sund; Health

and Environmental Sciences Group

2023293079

La Salle Ballroom A Noon - 1:30 pm

LUNCHEON AND PRESENTATION OF AWARDS
SPEAKER: Brooke Mossman, University of Vermont
TOPIC: Risks from Asbestos Exposure

# CONCURRENT AFTERNOON SESSIONS - 1:30 - 3:00 pm

La Salle Ballroom B (WPM-A) RISK COMMUNICATION

Chair: Branden B. Johnson, Columbia University

- (WPM-A1) RISK COMMUNICATION IN HETEROGENOUS GROUPS

  T. C. Earle, C. J. Taylor and <u>G. Cvetkovich</u>; Western Washington University
- (WPM-A2) CANCELLED
- (WPM-A3) A MULTI-METHOD APPROACH TO AUDIENCE ANALYSES IN DEVELOPING COMPREHENSIVE PUBLIC COMMUNICATIONS PROGRAMS

  C. W. Holmes, S. J. Byram and D. von Winterfeldt; Battelle Pacific Northwest Laboratory and University of Southern California
- (WPM-A4) COPING WITH PARADOXES OF RISK COMMUNICATION B. B. Johnson; Columbia University
- La Salle Ballroom C (WPM-B) NONCARCINOGENIC RISK ASSESSMENT

Chair: Harvey M. Richmond, US Environmental Protection Agency (WPM-B1) RISK MANAGEMENT OF GROUNDWATER CONTAMINATION BY ALDICARB IN

- CALIFORNIA

  P. R. Rerteau and D. C. Mengle: California Department of Heal
  - P. E. Berteau and D. C. Mengle; California Department of Health Services
- (WPM-B2) PROBABILISTIC RISK ASSESSMENT OF NONRADIOACTIVE, NONCARCINOGENIC TOXIC CHEMICALS
- V. K. Wilkinson and J. M. Young; Oak Ridge National Laboratory (WPM-B3) ASSESSING CHRONIC LUNG INJURY DUE TO LONG-TERM OZONE EXPOSURES H. M. Richmond, R. Whitfield, T. S. Wallsten, R. L. Winkler, S. R. Hayes and A. S. Rosenbaum; US Environmental Protection Agency, Argonne National Laboratory, University of North Carolina, Duke University and Systems Applications, Inc.
- Pelican Room 1 (WPM-C) SPECIAL TOPICS IN RISK ASSESSMENT

Chair: Ruth F. Weiner, Southwest Research Institute

- (WPM-C1) IMPLICATIONS OF SOIL CONTAMINANT REMOVAL MECHANISMS FOR QUANTITATIVE HEALTH RISK ASSESSMENT

  D. A. Kellermeyer, G. K. Anderson and M. T. Alberts; Radian Corporation
- (WPM-C2) EVALUATION OF ECOLOGICAL RISK ASSESSMENT METHODS AS APPLIED TO THE BAIRD AND MCGUIRE SUPERFUND SITE

  C. A. Menzie; Menzie-Cura and Associates
- (WPM-C3) COMPUTER AIDED HAZOP BY MEANS OF SIMFA

M. Boekamp; Safety Software and Services, The Netherlands

- (WPM-C4) RISKS AND IMPACTS OF INCIDENT-FREE AIR TRANSPORTATION OF RADIOACTIVE MATERIALS
  R. F. Weiner, P. A. LaPlante and J. P. Hageman; Southwest
  - R. F. Weiner, P. A. LaPlante and J. P. Hageman; Southwest Research Institute
- Pelican Room 2 (WPM-D) METHODOLOGICAL ISSUES IN RISK ASSESSMENT Chair: Gary R. Rosenblum, ARCO
  - (WPM-D1) RISK ASSESSMENT WITH LOWER PROBABILITIES
    B. Tonn and C. Wagner; Oak Ridge National Laboratory and
    University of Tennessee

## CONCURRENT AFTERNOON SESSIONS - 1:30 - 3:00 pm

(WPM-D2) ETHICAL AND SOCIAL ASPECTS IN COMPREHENSIVE RISK ASSESSMENT G. Yadigaroglu, Y. G. Gonen and S. Chakraborty; Swiss Federal Institute of Technology and Swiss Federal Nuclear Safety Inspectorate

(WPM-D3) IMPLICATIONS OF RISK ASSESSMENT PROCEDURES FOR HEALTH AND SAFETY POLICY

E. Lichtenberg; University of Maryland

(WPM-D4) OCCUPATIONAL SAFETY AND HEALTH RISK ISSUES IN THE YEAR 2000 G. R. Rosenblum; ARCO

#### Poydras Room

# (WPM-E) INNOVATIVE METHODS IN HAZARD IDENTIFICATION Chair: Paul F. Deisler, Jr., University of Houston

- (WPM-E1) INTERDISCIPLINARY APPROACH TO TOXICOLOGICAL RISK ASSESSMENT S. A. Hubbard, <u>T. R. Auton</u> and M. J. L. Clapp; ICI Plc Central Toxicology Laboratory, England
- (WPM-E2) TOXICOLOGISTS AND INNOVATION: WHAT'S KEY IN DEVELOPING NEW TECHNOLOGIES AND PRODUCTS?

  P. J. Hakkinen; The Procter and Gamble Company.
- (WPM-E3) ADVANCES IN HAZARD IDENTIFICATION FOR CARCINOGENS
  J. D. Wilson; Monsanto Company
- (WPM-E4) A METHOD FOR MERGING SEPARATE, QUALITATIVE, RISK-BASED RANKINGS FOR RISK MANAGEMENT PURPOSES
  P. F. Deisler, Jr.; University of Houston

#### Fulton Room

### (WPM-F) DERMAL ABSORPTION

Chair: Kenneth T. Bogen, Lawrence Livermore National Laboratory

- (WPM-F1) THE INFLUENCE OF DESORPTION KINETICS ON RISK EVALUATION OF UNTREATED AND TREATED SOILS

  D. Morgan, K. Gribben, C. Lee and J. Phillips; Remediation Technologies
- (WPM-F2) USE OF A RODENT MODEL TO ESTIMATE INHALATION VERSUS DERMAL ABSORPTION OF ORGANIC CHEMICAL VAPORS DURING WHOLE BODY EXPOSURES

J. N. McDougal; US Air Force

- (WPM-F3) PERCUTANEOUS ABSORPTION OF DILUTE AQUEOUS CHLOROFORM,
  TRICHLOROETHYLENE, AND TETRACHLOROETHYLENE IN HAIRLESS GUINEA
  PIGS: IMPLICATIONS FOR HUMAN EXPOSURE ASSESSMENT
  K. T. Bogen and B. W. Colston, Jr.; Lawrence Livermore National
  Laboratory
- (WPM-F4) ASSESSING DERMAL ABSORPTION

  T. R. Auton, J. D. Ramsey and B. H. Woollen; ICI Central

  Toxicology Laboratory, England

#### Orleans Room 1

(WPM-G) UNCERTAINTY AND VULNERABILITY IN RISK ASSESSMENT Chair: Robert W. Myers, Stone & Webster Engineering Corporation

- (WPM-G1) PROFESSIONALISM IN THE FACE OF DISTASTEFUL RISK: MOUNTAIN GOAT REMOVAL IN OLYMPIC NATIONAL PARK

  S. Tuler, G. Machlis and R. E. Kasperson; Clark University and University of Idaho
- (WPM-G2) UNCERTAINTY, A PERSPECTIVE WITH RESPECT TO THE "EPISODIC EVENT CONTINIUM"
- R. W. Myers; Stone & Webster Engineering Corporation
  (WPM-G3) CHANGING MOSAICS: PATTERNS OF VULNERABILITY AND DISTRIBUTIONS
  OF RISKS

K. M. Dow; Clark University

(WPM-G4) ESTIMATING THE TRUE EFFECT OF EXPOSURE DESPITE IMPRECISE EXPOSURE CLASSIFICATION

J. J. Weinkam, W. L. Rosenbaum and T. D. Sterling; Simon Fraser University, Canada



CONCURRENT AFTERNOON SESSIONS - 1:30 - 3:00 pm

Acadian Room (WPM-H) RISK ANALYSIS — AN INTEGRATOR FOR THEORETICAL AND APPLIED ECOLOGY

Chair: Steven M. Bartell, Oak Ridge National Laboratory

- (WPM-H1) IMPROVING THE EFFECTIVENESS OF ENVIRONMENTAL MANAGEMENT
  DECISIONS WITH OPTIMIZATION AND UNCERTAINTY ANALYSIS TECHNIQUES
  T. D. Fontaine and B. M. Lesht; South Florida Water Management
  District and Argonne National Laboratory
- (WPM-H2) COASTAL CHANGE AND ECOLOGICAL RISK ASSESSMENT J. R. Kelly; Cornell University
- (WPM-H3) CONTRIBUTIONS FROM ECOSYSTEM THEORY TO ECOLOGICAL RISK ANALYSIS J. B. Waide; USDA Forest Service
- (WPM-H4) ISSUES OF SCALE AND AGGREGATION IN ECOLOGICAL RISK ANALYSIS S. M. Bartell; Oak Ridge National Laboratory